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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,992	06/24/2003	Beverly Jean El A'mma	A01376	1607

21898 7590 09/13/2004

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EXAMINER

DELACROIX MUIRHEI, CYBILLE

ART UNIT	PAPER NUMBER
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1614

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/602,992

Applicant(s)

EL A'MMA ET AL.

Examiner

Cybille Delacroix-Muirheid

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/02/03;03/01/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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***Detailed Action***

The following is responsive to the preliminary amendment received June 24, 2003.

***Status of the Claim(s)***

Claims 1-10 are currently pending.

***Information Disclosure Statement(s)***

Applicant's Information Disclosure Statements received Oct. 2, 2003 and March 1, 2004 have been considered. Please refer to Applicant's copies of the 1449's submitted herewith.

***Claim Rejection(s)—35 USC 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "copper ion" in line 2. There is insufficient antecedent basis for this limitation in the claim.

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***Claim Rejection(s)—35 USC 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaglani et al., 5,916,930 in view of Hsu 5,292,763.

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Gaglani et al. teach stabilized biocidal aqueous or organic solvent-based alkyd compositions containing (0.05-1.0%) halopropargyl compounds, a transition metal drier (e.g. cobalt at 0.005-0.15%) a chelating agent and various known adjuvants. More specifically, the composition contains preferred halopropargyl compounds such as:

**as 3-iodo-2-propynyl propyl carbamate, 3-iodo-2-propynyl butyl carbamate, 3-iodo-2-propynyl hexyl carbamate, 3-iodo-2-propynyl cyclohexyl carbamate, 3-iodo-2-propynyl phenyl carbamate, and mixtures thereof.**

The transition metal driers used in the industry for accelerating the drying of the overall composition may comprise cobalt or other transition metals from Groups IB and VIII of the periodic table of elements. Chelating agents are also added to the composition to enhance the stability of the halopropargyl compounds, which are biocidal and may be affected by the presence of the transition metal compounds. Gaglani et al. teach that any compound having ligands, which can form coordinate bonds with a transition metal is potentially useful as the chelating agent. Examples include EDTA. The mole ratio of the chelating agent and the transition metal drier is from about 1:1 to about 6:1. Finally, Gaglani et al. disclose that such alkyd compositions are commonly used in coating formulations and applied to surfaces in order to protect the surface from the actions of microorganisms. Please see col. 2, lines 40-64; col. 3, lines 9-46; col. 4, lines 52-56 and lines 63-66; col. 5, lines 5-26; col. 6, lines 5-65.

Gaglani et al. do not disclose adding 3-isothiazolone to the composition. For this feature the Examiner refers to Hsu, which discloses a synergistic microbicidal composition comprising an effective amount (5-30%) of a 3-isothiazolone such as 4,5-

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dichloro-2-octyl-3-isothiazolone in combination with one or more of compounds such as 3-iodo-2-propynylbutylcarbamate and/or 2-n-octyl-3-isothiazolone. Hsu further discloses that these compositions are useful in methods for inhibiting the growth of bacteria, fungi or algae in a locus subject to contamination by these microorganisms by incorporating onto or into the locus and effective amount of the composition. Please see col. 1, lines 40-66; col. 2, lines 3-58.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the alkyd compositions of Gaglani et al. by incorporating into the composition an effective amount of a 3-isothiazolone as taught by Hsu because, based on Hsu's teaching of synergistic activity, one of ordinary skill in the art would reasonably expect the resulting halopropargyl containing compositions to exhibit synergistic activity against microorganisms when applied to a surface. Such a modification would have been motivated by the reasonable expectation of producing a highly effective biocidal composition.

Concerning the claimed concentration of the active ingredients, since the prior art establishes that the overall efficacy of the alkyd compositions depends on the concentration of the active agents, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the compositions of Gaglani and Hsu such that the components are present in a concentration effective to stabilize and optimize the biocidal activities of the alkyd composition.

With respect to the concentration of water or adjuvants also present in the composition, it would have been obvious to one of ordinary skill in the art to optimize the

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concentrations of these components such that the resulting composition maintains biocidal activity and is suitable for application to surfaces requiring treatment.

Finally, although Gaglani et al. do not specifically teach that the transition metal drier is "chelated" to the amine-chelating agent, e.g. EDTA, it would have been obvious in view of the disclosure at col. 5, lines 20-21 that the transition metal drier forms "coordinate bonds" with the chelating agents contained in the composition.

### ***Conclusion***

Claims 1-10 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Cybillie Delacroix-Muirheid** whose telephone number is **571-272-0572**. The examiner can normally be reached on Mon-Thurs. from 8:30 to 6:00 as well as every other Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher Low**, can be reached on **571-272-0951**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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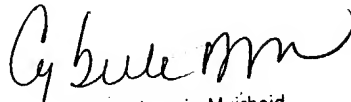
you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

CDM



Sep. 7, 2004



Cybille Delacroix-Muirheid  
Patent Examiner Group 1600